1 GNS3 settings

When starting GNS3 for the first time, you should set up the remote server parameters in the setup wizard as shown in Figure 1. You can also find the setup wizard from the menu: *Help -> Setup Wizard*.

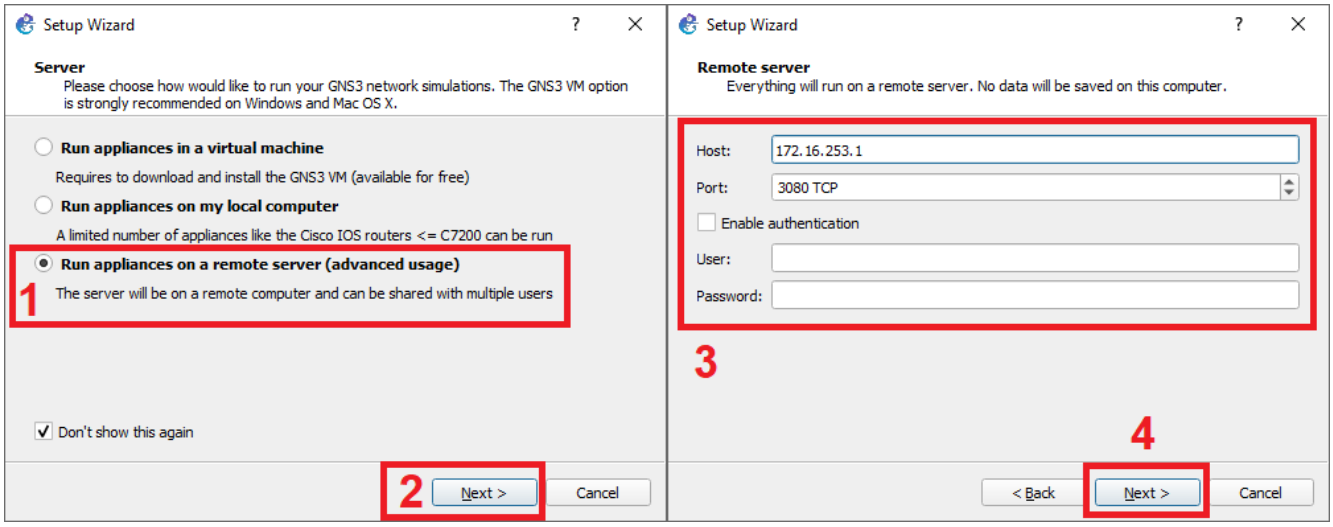

Figure 1: Remote server settings. Click Finish on the following page.

2 GNS3 overview

This section will give a brief overview of the GNS3 user interface. Start with creating a blank project and give it a name (e.g. your student number).

Note that GNS3 does not yet support user separation, so currently anyone can see and edit all projects. Please do not mess with anyone else's projects, thank you. We trust in you. You can take a backup of the configurations in case you cannot finish the exercise in one sitting. **Configurations will also disappear if you close the project or shutdown the virtual devices without explicitly saving the configurations beforehand.** More detailed instructions on how to save the configurations can be found in chapter 3.

Figure 2 below highlights the main features we will use.

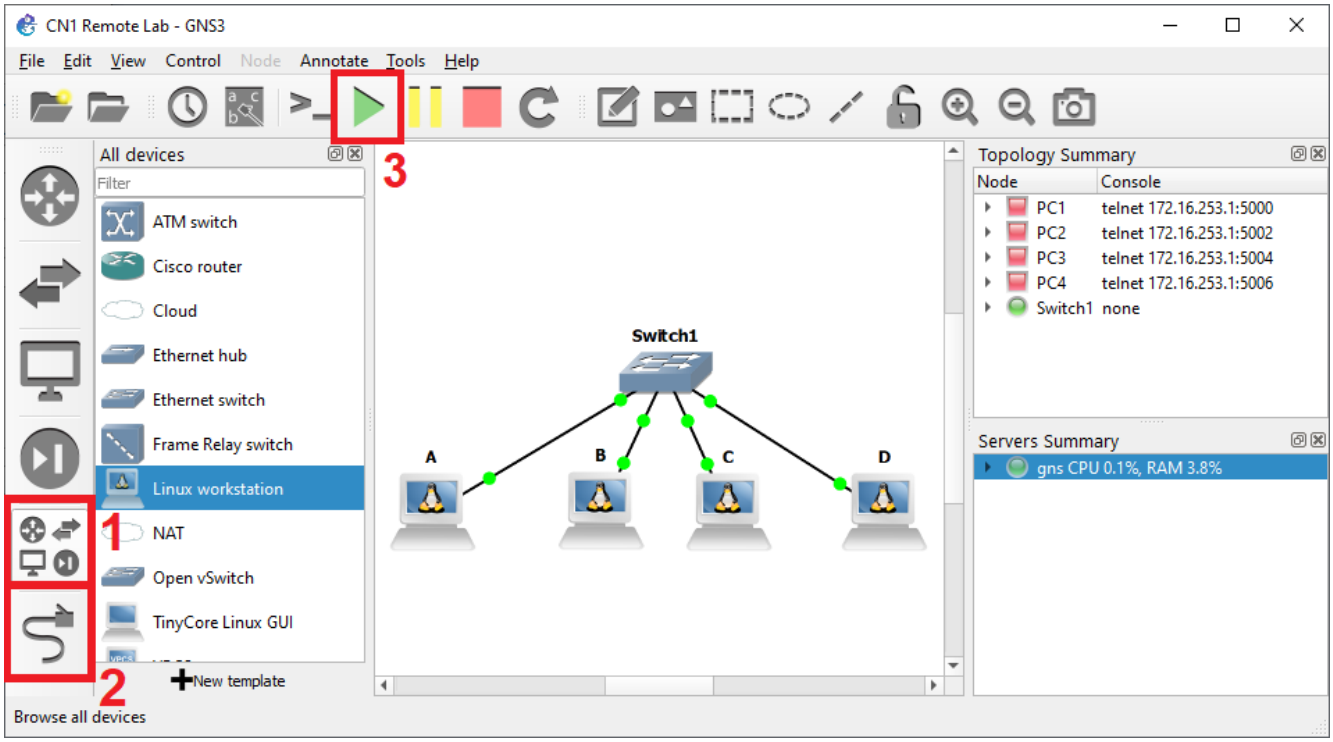

Figure 2: GNS3 user interface with the important features highlighted

In this exercise we will mainly use the following features:

1. Show the list of all virtual devices you can add to the project.
2. Creates a link between two devices, i.e., connects a virtual cable between them.
3. Turn on all virtual devices.

Additionally, on the right side you can see a list of all devices which have been added to the project.

Right-clicking a device either in the list or workspace brings up a context menu with useful commands.

3 Saving the configurations and taking a backup

3.1 Cisco router

Option 1: Enter the command `show running-config` to the router's console (exit config mode first if necessary) and copy the output into a text file.

Option 2: Enter the command `write memory` to the router's console (exit config mode first if necessary). This configuration also saves the configuration that it does not disappear when you close the device/project. After a while you can *Export config* from the router's context menu (startup-config is enough). Make sure that the config has synced by checking the contents of the exported file.

3.2 Linux workstation

Enter the commands `ip addr show` and `ip route show` . Copy the output to a text file or take a screenshot.

To save the IP addresses more permanently, edit the file */etc/network/interfaces* with a text editor (e.g. *vi* or *nano*), so that the IP addresses and gateways will be set automatically during boot. Example:

```
auto eth0
iface eth0 inet static
        address 192.168.0.2
        netmask 255.255.255.0
        gateway 192.168.0.1
```

3.3 Backup the entire GNS3 project

You can also export the entire project by choosing *Export portable project* in the *File* menu. Likewise, you can restore a project via *Import portable project*.

Note: This does not save the configurations unless you explicitly saved them to memory as described above.